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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/892,662

06/28/2001

Moo Jin Lee

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08/19/2004

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EXAMINER

TRAN, HENRY N

ART UNIT

PAPER NUMBER

2674

10

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,662

Applicant(s)

LEE, MOO JIN

Examiner

HENRY N TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments, see pages 2-8 of the Reply, filed 6/3/04, with respect to the rejection(s) of claim(s) 1-19 under *35 USC § 103(a)* have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Takeda (U.S. Patent No. 6,456,268) as follows.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the: "thin film transistors", control signal", "a driving voltage", "a charge time", "a digital to digital converter", and "a compensation voltage" recited in claim 1; and the: "a plurality of pixels", "a corresponding switching device", "data line", "scanning lines", "external control signals", "a timing of scanning signals", "a compensation voltage control signal", "a reference control signal", and "a compensated driving voltage" recited in claim 7 must be shown or the features canceled from the claims. No new matter should be entered.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "32", "36" and "40" have all been used to designate the compensation voltage setting; and reference characters "34", "38" and "42" have all been used to designate the voltage converter, see figures 3, 4, 6, 7, 9 and 10.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "34" (or "38", or "40") has been used to designate both the claimed

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elements: “a digital to digital converter” recited in claim 1 and “a voltage converter” recited in claim 7.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The examination of this application reveals that it includes terminology, which is so different from that which is generally accepted in the art to which this invention pertains that a proper search of the prior art has been made with difficulties. For example: “a digital to digital converter” recited in claim 1, which is described in the specification as: a direct current (DC) voltage to DC voltage converter 14, see page 3, lines 21-25; page 4, lines 27-29; and page 6, lines 18-24.

Examiner's suggestion: As understand by the examiner, this so called "digital to digital converter" has nothing to do with "digital to digital" but a display power source which is capable of providing different voltage levels for driving the gate of a pixel transistor and the common electrode of a pixel; and such a circuit is normally defined in the display art as a "display power source".

Applicant is required to provide a clarification of these matters or correlation with art-accepted terminology so that a proper comparison with the prior art can be made in response to this Office action. Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-19 are rejected under 35 U.S.C. 102(a) as being anticipated by Takeda (U.S. Patent No. 6,456,268).

Regarding claims 1-3 and 7-12, Takeda teach a liquid crystal display device including a liquid crystal display panel 35 provided with TFTs 14 and a driving control apparatus 10 having all the claimed invention comprising: a timing controller and a frequency detector 12; and a voltage setting means and display power converter 16 and 20 for providing a gate high voltage (a gate-on voltage) and a common voltage, see figures 1-3; and col. 3, line 38 to col. 5, line 5.

Regarding claims 4-6 and 13-19, which are method claims corresponding to the apparatus claims 1-3 and 7-12, and are rejected on the same basis set forth in claims 1-3 and 7-12 discussed above.

Response to Arguments

7. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

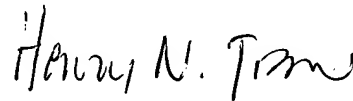
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are U.S. Patents Nos.: 6741229 and 6680722, which teach a liquid crystal display device comprising a driving control circuit including a timing controller and /or a voltage generator circuit or a scanning circuit for providing gate and common voltages for driving the display.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY N TRAN whose telephone number is 703-308-8410. The examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD A HJERPE can be reached on 703-305-4709. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HENRY N TRAN
Primary Examiner
Art Unit 2674

8/17/04